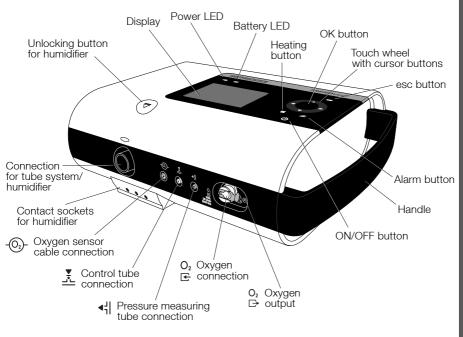
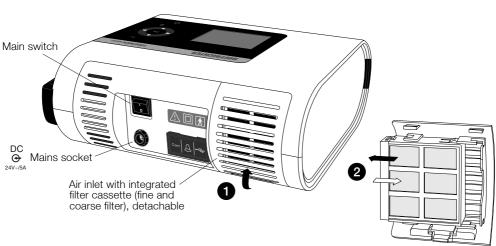


This document does not replace the manufacturer's user's manual. Follow the user's manual.

HUFFRIGHTER

Quality makes the Difference





#### CHANGING AND CLEANING THE FILTERS

The coarse filter must be cleaned once a week. The white fine filter cannot be cleaned. It should be inspected visually weekly and replaced monthly or more frequently if heavily soiled.

- 1. Pull the cover of the air inlet from the device.
- 2. Slide the filter cassette out from the cover of the air inlet.
- 3. Remove the coarse filter (black) and the fine filter (white) from the filter cassette.
- Clean the coarse filter with mild soapy water, afterwards rinse the filter thoroughly with clear water. Let the filter dry completely in the air.

Instead of cleaning the coarse filter, you can insert a new one.

## LEDs AND BUTTONS

### Power LED

Color	Condition	Power supply	
green	lit	Voltage > 22.0 V	
red	flashing	Voltage > 22.0 V	
none	off	Voltage > 22.0 V (confirmed)	

# ## Heating button

Color	Condition	Status
green	lit	Heating on
green	flashing	Heating on standby
white	lit	Heating off
white	flashing	Heating deactivated by battery operation

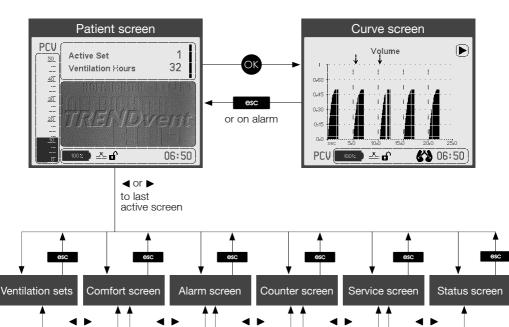
# Alarm button

Color	Condition	Priority
red	flashing	HIGH
yellow	flashing	MEDIUM
yellow	lit	LOW or not yet confirmed
		alarm

### Battery LED

Color	Condition	Device	Capacity
green	lit	on	> 80 %
yellow	lit	on	> 30 %
red	lit	on	< 30 %
red	flashing	on	Battery error
green	flashing	off	> 80 % (Battery charging)
yellow	flashing	off	> 30 % (Battery charging)
red	flashing	off	< 30 % (Battery charging)
yellow	lit	off	Battery charging error (capacity < 80 %)
red	lit	off	Battery charging error (capacity < 30 %)

### **OPERATING CONCEPT**



#### MOST IMPORTANT OPERATIONS

Action	Execution	
Start ventilation	press 💍 🖰	
Stop ventilation	press, confirm query with "Yes" (press ◀ and confirm with OK)	
Switch humidifier heating on and off	press <b>\$\square{\square}\squar</b>	
Activate the safety lock	press => fig., then press OK => f	
Deactivate the safety lock	press => (i) (i), then press (OK) => (T)	
Switch from curve screen to patient screen	press esc	
Activate other ventilation set	Select desired ventilation set with ◀ or ▶, then select "⊷ Activate changes" with ▼ or touch wheel and press or to confirm	
Supressing the alarm sound for 2 min	press 💢	

#### MEANING OF SYMBOLS IN THE SYMBOL AREA OF THE DISPLAY

MEANING OF STMBOLD IN THE STMBOL ATEA OF THE BIOF EAT		
Symbol	Meaning	
100% 68 %	Capacity of internal battery	
<u>-*-</u>	Device is set for operation with valve tube system	
L   <del>  4</del>	Device is set for operation with leakage tube system	
	Alarm sound was muted	
Ô	Safety lock active	
Ä	Safety lock inactive	
j.	Device must be serviced	
Æ	Mask test active	
<b></b>	Softstart ramp active	
<b>63</b>	Trigger initiated through patient's spontaneous respiration	
	Trigger Lock active	

## IMPORTANT ALARMS AND MESSAGES

Alarm / message	Priority	Cause
Pressure too high	HIGH	Pressure greater than set "Max. Pressure" or positive pressure deviation greater than set deviation
Pressure too low	HIGH	Pressure lower than set "Min. Pressure" or negative pressure deviation greater than set deviation
Frequency too high	HIGH	Measured frequency greater than "Max. Frequency"
Apnea	HIGH	Set apnea time exceeded
Leakage	HIGH	Leakage greater than set leakage (volume too great for 3 breaths) or flow greater 1 l/s (2 l/s in CPAP mode)
Volume too high	HIGH	Tidal volume greater than "Max. Volume"
Volume too low	HIGH	Tidal volume smaller than "Min. Volume"
Oxygen too high	MEDIUM	Measured FiO <sub>2</sub> greater than set "Max. Oxygen"
Oxygen too low	MEDIUM	Measured FiO <sub>2</sub> lower than set "Min. Oxygen"
Min. Volume not reached	Note	Tidal volume smaller than set minimum volume - Additional pressure insufficient
Safety Mode active		Patient not breathing spontaneously; minimum frequency safeguard via the device; only in PSV mode

Message	Priority	Cause	Remedy
Incorrect Tube System	HIGH	Incorrect tube system connected (valve tube)	Change setting of tube system on rear of device or replace tube system
Check Measuring Tube	HIGH	Pressure difference to 2nd pressure sensor greater 3 hPa (> 15 s)	Check connection between measuring tube and device
Internal Battery empty	HIGH	Battery empty	Battery must be charged; 1 minute until the power supply fails completely; venti- lation only possible with external power supply
Check Expiration Valve	HIGH	Expiration valve does not allow respiratory air to escape	Check expiration valve and replace if necessary
		Incorrect tube system connected (leakage tube)	Change setting of tube system on rear of device or replace tube system
Battery MEDIUM Operation		Device is not connected to mains power and is being supplied with power by the internal battery	Press alarm button
Error int. Battery	MEDIUM	Battery defective	Device must be serviced
Int. Battery low	MEDIUM	Battery capacity ≤ 10 %	Battery must be charged
Calibrate O <sub>2</sub> Sensor	LOW	Oxygen sensor plugged in after device was turned on	Calibrate oxygen sensor with ventilation switched off